



EFFECTIVENESS OF BUTEYKO BREATHING TECHNIQUE ON RESPIRATORY FUNCTION AMONG SCHOOL AGE CHILDREN WITH BRONCHIAL ASTHMA AT SELECTED HOSPITAL VADALUR

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ABSTRACT

Take A Deep Breath And Release.” Yet many of us still think of breathing as a natural involuntary function that our bodies just know to do. Bronchial asthma is chronic inflammatory disorder of the lower airway due to temporary narrowing of the bronchi by bronchospasm, manifested as dyspnea, wheezing and excessive cough. These symptoms may only aggravate with poor breathing technique, these techniques that improve the breathing are known as breathing exercise and will help the school age children to control their respiratory muscles and improve their condition. **Objectives:** the present study was aimed to evaluate the effectiveness of buteyko breathing techniques on respiratory function among school age children with bronchial asthma at selected hospital, vadalur. Design: the research study made use of quasi experimental research design. Participants: the non-probability purposive sampling technique was used to select 50 samples. **Methods:** demographic variables and pre test was conducted on the first day for both experimental group and control group to assess the respiratory parameters in experimental group. The data gathered were analysed using descriptive and inferential statistics. **Result:** the result shows the comparison of pretest and post test mean level of respiratory function among school age children with bronchial asthma. pre test and post test difference in experimental group is 4, level is the difference between the pre test and post test mean in control group is 1. It seems that the effectiveness of buteyko breathing techniques on respiratory function were differences of 3%. The experimental group paired “t” test was 23.78 and control group was 14.16 ($p < 0.05$), the experimental group and control unpaired “t” test value was 3.658 ($p < 0.05$) in respiratory function. There is significant difference in independent “s” test regarding respiratory function level.

KEYWORDS: bronchial asthma, buteyko breathing technique, respirator function.

INTRODUCTION:

Buteyko breathing technique method is taught as a complementary therapy and several small clinical trials have shown that it can safely reduce asthma symptoms and the need for reliever medication in some people, as well as increasing quality of life scores however. Improvement takes time and commitment, requiring daily exercise over a period of weeks or months. At the score of the buteyko method is a series of breathing exercise that focus on nasal-breathing. Breathe holding and relaxation.

NEED FOR THE STUDY:

Children are little of our society, they have rights and duties. They keep our genes. They can be discussed taking into consideration various aspects of everyday life. Children can be considered full-fledged members of the human society. They represent successive which will keep our traditions, customs, and language. Children should receive the best experience of the previous generations. thereby, it is important to create opportunities and to give chances in order our children could obtain education.

Every year, india adds more people than any other nation in the world, and in fact the individual population of some of its states is equal to the total population of many countries in the india, approximately 31.2% of children were 0-14%.

OPERATIONAL DEFINITION:

Evaluate:

In this study It refers to the estimation of outcome of buteyko breathing techniques among school age children with bronchial asthma.

Effectiveness:

It refers to the desired change in the respiratory function of the school age children with bronchial asthma as a result of buteyko breathing technique.

Buteyko breathing technique:

The buteyko breathing techniques refers to the techniques that propose the use of 5 steps breathing exercise as a treatment of for bronchial asthma and is performed for 10–15 minutes, 3 times per day for 5 days.

Respiratory function:

Respiratory function is a status of the respiratory systems, it is assessed with respiratory parameters such as respiration, breath sound, use of accessory muscles, mental status, breath holding time, and color by using modified clinical asthma respiratory assessment rating scale.

School age children with bronchial asthma:

School age children between the age group of 7-12 years with bronchial asthma.

OBJECTIVES OF THE STUDY:

1. To assess the level of respiratory function among school age children before

and after buteyko breathing techniques in experimental and control group.

2. To evaluate the effectiveness of buteyko breathing technique on respiratory function among school age children with bronchial asthma in experimental group.
3. To find out the association between the post test level of respiratory function among school age children with bronchial asthma and their selected demographic variables in experimental group and control group.

HYPOTHESIS:

- There will be significant difference in the level of respiratory function among school age children with bronchial asthma before and after buteyko breathing technique in experimental and control group.
- There will be a significant effectiveness of buteyko breathing technique on respiratory function among school age children with bronchial asthma in experimental group.
- There will be a significant association between the post test level of respiratory function among school age children with bronchial asthma and their selected demographic variables in experimental group and control group.

Assumptions:

1. Buteyko breathing technique improve the respiratory function.
2. Buteyko breathing technique decreases the symptoms of bronchial asthma.

MATERIAL AND METHODS:

- **Research approach:** Quantitative Approach
- **Research Design:** Quasi Experimental Research design group pre and post test design
- **Study Setting:** School age children with bronchial asthma.
- **Population:** School children
- **Sample:** The students who met with the inclusion criteria were taken as samples
- **Sample Size:** 50
- **Sample Technique:** Non-probability purposive sampling technique.

Description of tool:

Tool consists of 2 Parts

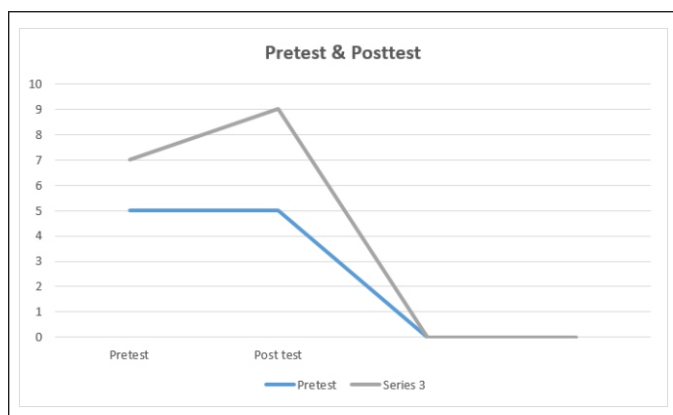
Part I: Demographic Variables**Part II: Assessment tool****RESULT AND DISCUSSION:**

Table 1: Frequency and percentage distribution of pretest and post test score on level of respiratory function among experimental group.

S. No	Level of respiratory function	Experimental group			
		Pretest		Posttest	
		Frequency	Percentage	Frequency	Percentage
1	Poor	10	40	-	-
2	Average	15	60	22	88
3	Good	-	-	3	12

Table-1 shows the frequency and percentage distribution of the pre test and post test scores of respiratory function among the children depicts that, in the pre test most 15(60%) of them having average respiratory function and only 10(40%) of them having poor respiratory function and 3(12%) were having good respiratory function, it seems that buteyko breathing technique on respiratory function among school age children with bronchial asthma was effective.

Table 2: Frequency and percentage distribution of pretest and posttest score on level of respiratory function among control.

S. No	Level of respiratory function	Experimental group			
		Pretest		Posttest	
		Frequency	Percentage	Frequency	Percentage
1	Poor	8	32	4	16
2	Average	17	68	21	84
3	Good	-	-	3	-

Table-2 shows the frequency and percentage distribution of pre test and posttest scores of respiratory function among the children depicts that, in pre test most (68%) of them were having average respiratory function and only (32%) having poor respiratory function. Were as in post test majorities (84%) having poor respiratory function. Having average respiratory function and only (16%) were having poor respiratory function. It seems that buteyko breathing technique on respiratory function among school age children with bronchial asthma.

Table 3: Evaluate the effectiveness of buteyko breathing technique on respiratory function in experimental and control group

S. No	Level of respiratory function	Paired "t" value	Table value	Level of significance
01	Experimental group	23.78	2.00	P<0.05
02	Control group	14.16	2.00	P<0.05

Table 4: Un paired "t" test value of pre and post test score of respiratory function among school age children with bronchial asthma.

S. No	Level of respiratory function	Un Paired "t" value	Table value	Level of significance
01	Experimental group and control group.	3.68	2.00	P<0.05

Table 5: association between the post test scores of levels of respiratory function among school age children with bronchial asthma and their demographic variables in experimental group

S. No	Demographic variables	Level of respiratory function			Chi square value	Table value	Inference
		Poor	Average	Good			
01	Age: a) 7-9 year b) 10-12 year	9 10	1 5	- -	1.005	3.84	NS
02	Sex: a) Boys b) Girls	10 2	12 -	- 1	2.7945	3.84	S
03	Religion: a) Hindu b) Muslim c) Christian	13 4 1	5 1 -	- - 1	12.2981	5.99	S
04	Education: a) Primary b) Higher secondary	16 4	3 1	1 -	0.3125	3.83	NS
05	Living area: a) Urban b) Rural	10 2	12 -	- 1	2.7945	3.84	NS
06	Types of the house: a) Hut b) Terrace c) Tiled	8 3 -	8 4 0	1 1 0	2.1397	5.99	NS
07	Food pattern of the family: a) Veg b) Non-veg	14 3	4 2	1 1	2.0146	3.84	NS
08	Occupation of the father: a) Environmental related worker b) Office worker c) Unemployment	4 2 3	5 4 6	- - 1	1.864	5.99	NS
09	Occupation of the mother: a) House wife b) Environmental related worker	8 10	7 0	0 0	6.4813	5.99	S
10	Income of the family: a) >5000 b) 5000- 8000 c) Above 8000	8 4 2	3 5 1	1 - 1	4.145	5.99	NS
11	Types of family: a) Joint family b) nuclear family c) extended family	9 2 3	6 1 3	1 - 1	3.218	5.99	NS
12	Number of living children: a) One b) Two c) More than two	7 9 3	- 2 1	1 2 1	3.218	2.3269	NS
13	Pet animals in home: a) Yes b) No	14 5	4 2	- 2	0.1112	3.84	NS
14	Previous history of bronchial asthma: a) Yes b) No	16 2	2 4	- 1	9.5677	3.84	S
15	Duration of bronchial asthma: a) <1 year b) 1-3 year c) >3 year	16 4 1	2 - 1	1 - -	3.6338	3.84	NS

A total of 50 samples were selected for the study by using non- probability purposive sampling method. written-consent from all the samples were obtained. A pretest was conducted to assess the respiratory function among school age children Schedule. Then, the buteyko breathing techniques was given by the investigator regarding bronchial asthma After 7 days, the post test was conducted for the same samples.

Frequency and percentage distribution school age children with asthma to their level of respiratory function show in table 2. According to table no 2 in analysis 7(14%) subject got poor scores. 10(40%) of them got average score and 15(60%) got adequate knowledge score in pre test. A pre test was conducted for the subject followed by a structured teaching programme and then the post test.

CONCLUSION:

From the findings of the study it will be concluded that, the buteyko breathing technique was effective among school age children in experimental group.

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